



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:	)	Attorney Docket No. 54719.000099
	)	
Thomas PICCARIELLO et al.	)	Art Unit: Unassigned
	)	
Application No.: 10/727,565	)	Examiner: Unassigned
	)	
Filed: December 5, 2003	)	
	)	

For: ACTIVE AGENT DELIVERY SYSTEMS AND METHODS FOR PROTECTING  
AND ADMINISTERING ACTIVE AGENTS

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with 37 C.F.R. §§ 1.56, 1.97, and 1.98, Applicants respectfully request consideration of the reference listed on the attached Form PTO-1449. Since copies of the cited references were previously submitted in prior U.S. Patent Application No. 09/642,820 (Attorney Docket No. 54716.000016) by the Applicants and is a case to which the present case claims priority, copies of the cited references are not being submitted herewith. For the Examiner's convenience a copy of the signed PTO-1449 from the priority case are provided. Applicants will provide any reference listed at the request of the Examiner.

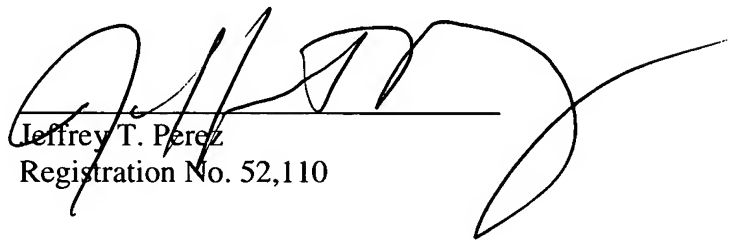
Applicants respectfully point out that the submission of the listed document in this Information Disclosure Statement is not an admission that it is a prior art or that it is material to patentability of any claims of the application. Also, the submission of this Information Disclosure Statement is not an indication that a search has been made.

Applicants respectfully request that the Examiner consider the reference cited on the Form PTO-1449 and that the Examiner indicate that the reference has been considered in this application by returning a copy of the Form PTO-1449 with the Examiner's initials in the left column per MPEP 609.

This IDS is submitted prior to the issuance of a first Office Action on the merits; therefore, it is believed that no fees are required in connection therewith. If any fees are necessitated by the filing of this Information Disclosure Statement, please charge the undersigned's Deposit Account No. 50-0206.

Respectfully submitted,  
HUNTON & WILLIAMS LLP

By:



Jeffrey T. Perez  
Registration No. 52,110

Hunton & Williams, LLP  
1900 K Street, N.W., Suite 1200  
Washington, D.C. 20006-1109  
(202) 955-1500 (Telephone)  
(202) 778-2201 (Facsimile)

Dated: 9 March 2004

JTP/sdw

Please type a plus sign (+) inside this box



PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

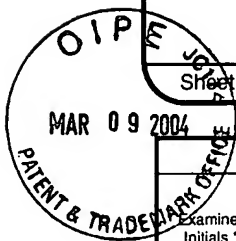
# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 7

## **Complete if Known**

Application Number	10/727,565
Filing Date	December 5, 2003
First Named Inventor	Thomas PICCARIELLO et al.
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	54719.000099



## **U.S. PATENT DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	1.	3331814		Randall	07/18/1967	
	2.	3975342		Gross	08/17/1976	
	3.	3998799		Bodor et al.	12-21-1976	
	4.	4040907		Ullman et al.	08/09/77	
	5.	4224316		Momany	09/23/1980	
	6.	4297346		Rips et al.	10-27-1981	
	7.	4358604		Albarella et al.	11/09/1982	
	8.	4399121		Albarella et al.	08/16/83	
	9.	4426453		Cree et al.	01/17/1984	
	10.	4427660		Schiffman et al.	01/24/1984	
	11.	4457907		Porter	07-1984	
	12.	4483807		Asano et al.	11/20/1984	
	13.	4490221		Collange et al.	12/25/1984	
	14.	4552864		Antoni et al.	11/12/85	
	15.	4650675		Borel et al.	03/17/1987	
	16.	4650675		Borel et al.	03/17/1987	
	17.	4657873		Gadow et al.	04/14/1987	
	18.	4766121		Ellis et al.	08/23/1988	
	19.	4801575		Pardridge	01/31/1989	
	20.	4902505		Pardridge et al.	02/20/1990	
	21.	4960790		Stella et al.	10/02/1990	
	22.	4976962		Bichon et al.	12/11/90	
	23.	5073641		Bundgaard et al.	12/17/1991	
	24.	5169933		Anderson et al.	12/08/1992	
	25.	5219564		Zalipsky et al.	06/15/1993	
	26.	5225204		Chen et al.	07/06/1993	
	27.	5324522		Krenning et al.	06/28/1994	
	28.	5362831		Mongelli et al.	11/08/1994	
	29.	5362831		Mongelli et al.	11/08/1994	
	30.	5534496		Lee et al.	07/09/96	
	31.	5670477		Poduslo et al.	09-23-1997	
	32.	5707979		Peyman et al.	01/13/1998	
	33.	5756291		Griffin et al.	05/26/1998	
	34.	5762909		Uzgiris	06/09/98	

Examiner  
Signature

Date  
Considered

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → +

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2 of 7

### Complete if Known

Application Number	10/727,565
Filing Date	December 5, 2003
First Named Inventor	Thomas PICCARIELLO et al.
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	54719.000099

### U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	35.	5767227		Latham et al.	06/16/98	
	36.	5846743		Janmey et al.	12/08/98	
	37.	5891459		Cooke et al.	04-1999	
	38.	5898033		Swadesh et al.	04/27/1999	
	39.	5910569		Latham et al.	06/08/99	
	40.	5935995		Bosslet et al.	08/10/1999	
	41.	5952294		Lazo et al.	09/14/1999	
	42.	5952294		Lazo et al.	09/14/99	
	43.	5955105		Mitra et al.	09/21/1999	
	44.	5977163		Li et al.	11/02/99	
	45.	6005004		Katz et al.	12/21/1999	
	46.	6043230		Arimilli et al.	03/28/2000	
	47.	6043230		Arimilli et al.	03/28/2000	
	48.	6048736		Kosak	04/11/2000	
	49.	6074659		Kunz et al.	06/13/2000	
	50.	6093391		Kabanov et al.	07-25-2000	
	51.	6146658		Bosslet et al.	11/14/2000	
	52.	6306993		Rothbard et al.	10/23/01	
	53.	6355666		Lai et al.	03/12/2002	
	54.	US2002/0098999		Gallop et al.	07/25/2002	
	55.	6429223		Lai et al.	08/06/2002	
	56.	6458842		Dickinson et al.	10/01/2002	
	57.	US2002/0151526		Gallop et al.	10/17/2002	
	58.	US2002/0151529		Cundy et al.	10/17/2002	

Examiner  
Signature

Date  
Considered

<sup>1</sup> EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box



PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 3 of 7

## **Complete if Known**

Application Number	10/727,565
Filing Date	December 5, 2003
First Named Inventor	Thomas PICCARIELLO et al.
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	54719.000099

## **FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sub>6</sub>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	59.	WO	02-1998		Pitt			
	60.	EPO	0 187 547	A2	Kopecek	07/16/1986		
	61.	WO	95/14033		Tukker	05/26/1995		
	62.	WO	95/12605		Tukker	05/11/1995		
	63.	WO	97/21993	A2	Scanlan, et al.	06/19/1997		

## **OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	64.	CANARIS, G., "The Colorado Thyroid Disease Prevalence Study," Archives Internal Medicine Articles and Abstracts, Vol. 160, No. 4 (2000).	
	65.	BUNEVICIUS, R., "Effects of Thyroxine as Compared with Thyroxine Plus Triiodothyronine in Patients with Hypothyroidism," The New England Journal of Medicine, Vol. 340, No. 6 (1999).	
	66.	TOFT, A., "Thyroid Hormone Replacement -- One Hormone or Two?," The New England Journal of Medicine, Vol. 340, No. 6 (1999).	
	67.	PADE, V., et al., "Link Between Drug Absorption Solubility and Permeability Measurements in Caco-2 Cells," Journal of Pharmaceutical Sciences, Vol. 87, No. 12 (1998).	
	68.	OH, D., et al., "Estimating the Fraction Dose Absorbed from Suspensions of Poorly Soluble Compounds in Humans: A Mathematical Model," Pharmaceutical Research, Vol. 10, No. 2 (1993).	
	69.	AMIDON, G., et al., "A Theoretical Basis for a Biopharmaceutic Drug Classification: The Correlation of <i>in Vitro</i> Drug Product Dissolution and <i>in Vivo</i> Bioavailability," Pharmaceutical Research, Vol. 12, No. 3 (1995).	

Examiner Signature

Date Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Please type a plus sign (+) inside this box

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

<b>Substitute for form 1449A/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>			
		Application Number	10/727,565		
		Filing Date	December 5, 2003		
		First Named Inventor	Thomas PICCARIELLO et al.		
		Group Art Unit	Unassigned		
		Examiner Name	Unassigned		
Sheet	4	of	7	Attorney Docket Number	54719.000099

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	70.	KOVACS, J., "Glutamic and Aspartic Anhydrides. Rearrangement of N-Carboxyglutamic 1,5-Anhydride to the Leuchs' Anhydride and Conversion of the Latter to Pyroglutamic Acid," 85:1839-1844. (6-20-1963)	
	71.	ZUNINO, Franco, et al., "Anti-Tumor Activity of Daunorubicin Linked to Poly L-Aspartic Acid," <i>Int. J. Cancer</i> , 30:465-470 (1982).	
	72.	OKADA, Masahiko, et al., "Synthesis of Glycopeptide-Conjugates via Ring-Opening Polymerization of Sugar-Substituted $\alpha$ -Amino Acid N-Carboxyanhydrides (GlycoNCAs)," <i>Proc. Japan Acad.</i> , 73:205-209, (1997).	
	73.	NISHIDA, Koyo, et al., "Pharmacokinetic Analysis of <i>in Vivo</i> Metabolism of Amino Acid or Dipeptide Conjugates of Salicylic Acid in Rabbit Intestinal Microorganisms," <i>Pharmaceutical Research</i> , 11(1):160-164 (1994).	
	74.	SCHMIDT, Brigitte F., et al., "Peptide-Linked 1,3-Dialkyl-3-acyltriazines: Gastrin Receptor Directed Antineoplastic Alkylating Agents," <i>Journal of Medicinal Chemistry</i> , 37(22):3812-3817 (1994).	
	75.	KAWAI, Tohru, et al., "Direct Polymerization of N-Carboxy Anhydride of L-Glutamic Acid," <i>Makromol. Chem.</i> , 182:2127-2137 (1981).	
	76.	BENNETT, R., et al., "O-Phosphoric Acid Esters of 3,5-Diiodotyrosine and Thyroxine," <i>Journal of Medicinal and Pharmaceutical Chemistry</i> , 2(5):493-498 (1960).	
	77.	GREENE, Theodora, et al., "Protection for Phenols," <i>Protective Groups in Organic Synthesis</i> , 2 <sup>nd</sup> Ed., John Wiley & Sons, Inc., (1991)	
	78.	HOFFENBERG, R., et al., "The Application of Mass Spectrometry to the Study of Thyroxine and Related Compounds in Biological Fluids," <i>Mass Spectrometry in Biochemistry and Medicine</i> , pp. 303-312 (1974).	
	79.	PERISICO, F.J., et al., "Effect of Tolmetin Glycine Amide (McN-4366), a Prodrug of Tolmetin Sodium, on Adjuvant Arthritis in the Rat," <i>The Journal of Pharmacology and Experimental Therapeutics</i> , 247(3):889-896 (1986).	
	80.	SMITH, Richard H., et al., "1,3-Dimethyl-3-acyltriazines: Synthesis and Chemistry of a Novel Class of Biological Methylating Agents," <i>J. Org. Chem.</i> 51(20):3751-3757 (1986).	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Please type a plus sign (+) inside this box

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO		<b>Complete if Known</b>	
		Application Number	10/727,565
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Filing Date	December 5, 2003
		First Named Inventor	Thomas PICCARIELLO et al.
		Group Art Unit	Unassigned
		Examiner Name	Unassigned
		Attorney Docket Number	54719.000099
Sheet	5	of	7

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	81.	SMITH, R. H., et al., 1,3-Dialkyl-3-acyltriazenes, A Novel Class of Antineoplastic Alkylating Agents," <i>Journal of Medicinal Chemistry</i> , 33(9):25792583 (1990).	
	82.	Ueki, Masaki, et al., "Methylphosphinyl (Omp): A New Protecting Group of Tyrosine Suitable for Peptide Synthesis by Use of Boc-Amino Acids," <i>Tetrahedron Letters</i> , 27(35):4181-4184 (1986).	
	83.	MAKOTO, Iwatsuki, et al., "Beta2 Microglobulin Adsorbent," (Abstract of JP04126160) (4-27-1992)	
	84.	TORU, Kawai, et al., "Gamma-Glutamic Acid N-Carboxyanhydride," (Abstract of JP52100486). (8-23-1997)	
	85.	NARIYOSHI, Ebihara, et al., "Polyamino Acid Block Copolymer and Preparation Thereof," (Abstract of JP55145736). (11-13-1980)	
	86.	BENNETT, Raymond, et al., "O-Phosphoric Acid Esters of 3,5-Diiodotyrosine and Thyroxine," <i>Chemical Abstracts</i> , 55(9):8303 (1961).	
	87.	ORTEN, James M. et al., "Thyroxine," <i>Human Biochemistry</i> , 9 <sup>th</sup> Ed., C.V. Mosby Company, St. Louis, pp. 401-405 (1975).	
	88.	LI, Chun, et al., "Complete Regression of Well-Established Tumors Using a Novel Water-Soluble Poly(L-Glutamic Acid)-Paclitaxel Conjugate," <i>Cancer Res</i> , 58:2404-2409 (1998).	
	89.	KRAMER, Werner et al., "Intestinal Absorption of Peptides by Coupling to Bile Acids," <i>The Journal of Biological Chemistry</i> , 269(14):10621-10627 (1994).	
	90.	RAWITCH, Allen B., et al., "The Isolation of Identical Thyroxine Containing Amino Acid Sequences from Bovine, Ovine and Porcine Thyroglobulins," <i>Biochemical and Biophysical Research Communications</i> , 118(2):423-429 (1984).	
	91.	MARRIQ, Claudine, et al., "Amino Acid Sequence of the Unique 3,5,3'-Triiodothyronine-Containing Sequence from Porcine Thyroglobulin," <i>Biochemical and Biophysical Research Communications</i> , 112(1):206-213 (1983).	
	92.	SAWADA, Kyoko, et al., "Recognition of L-Amino Acid Ester Compounds by Rat Peptide Transporters PEPT1 and PEPT2," <i>Journal of Pharmacology and Experimental Therapeutics</i> , 291(2):705-709 (1999).	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

<sup>1</sup> EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>2</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐



PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/727,565
		Filing Date	December 5, 2003
		First Named Inventor	Thomas PICCARIELLO et al.
		Group Art Unit	Unassigned
		Examiner Name	Unassigned
		Attorney Docket Number	54719.000099
Sheet	6	of	7

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	93.	DE VRUEH, Remco L.A., et al., "Transport of L-Valine-Acyclovir Via the Oligopeptide Transporter in the Human Intestinal Cell Line, Caco-2," <i>Journal of Pharmacology and Experimental Therapeutics</i> , <b>286</b> (2):1166-1170 (1988).	
	94.	GUO, Ailan, et al., "Interactions of a Nonpeptidic Drug, Valacyclovir, with the Human Intestinal Peptide Transporter (hPEPT1) Expressed in a Mammalian Cell Line," <i>Journal of Pharmacology and Experimental Therapeutics</i> , <b>289</b> (1):448-454 (1999).	
	95.	BURNETTE, Thimysta C., et al., "Metabolic Disposition of the Acyclovir Prodrug Valacyclovir in the Rat," <i>Drug Metabolism and Disposition</i> , <b>22</b> (1):60-64 (1994).	
	96.	AGGARWAL, et al., "Synthesis and Biological Evaluation of Prodrugs of Zidovudine," <i>J. Med. Chem.</i> , <b>33</b> (5):1505-1511 (1990).	
	97.	ZUNINO, Franco, et al., "Comparison of Antitumor Effects of Daunorubicin Covalently Linked to Poly-L-Amino Acid Carriers," <i>European Journal of Cancer &amp; Clinical Oncology</i> , <b>20</b> (3):121-125 (1984).	
	98.	HAVRANOVA, Marie et al., "A High-Molecular Mass Derivative of Trypsin-Kallikrein Inhibitor for Potential Medical Use, II," <i>Hoppe-Seyler's Z. Physiol. Chem.</i> , <b>363</b> :295-303 (1982).	
	99.	RYSER, Hugues J.P., et al., "Conjugation of Methotrexate to Poly (L-lysine) Increases Drug Transport and Overcomes Drug Resistance in Cultured Cells," <i>Proc. Natl. Acad. Sci. USA</i> , <b>75</b> (8):3867-3870 (1978).	
	100.	HAN, Hyo-Kyung, et al., "Targeted Prodrug Design to Optimize Drug Delivery," <i>AAPS PharmSci</i> , <b>2</b> (1): Article 6 (2000).	
	101.	TAMAI, I., et al., "Improvement of L-dopa Absorption by Dipeptidyl Derivation, Utilizing Peptide Transporter PepT1," <i>J. Pharma. Sci.</i> , <b>87</b> (12):1542-1546 (1988), Abstract.	
	102.	OH, DM, et al., "Drug Transport and Targeting. Intestinal Transport," <i>Pharma Biotechnol.</i> , <b>12</b> :59-88 (1999), Abstract.	
	103.	BALIMANE, P., et al., "Effect of Ionization on the Variable Uptake of Valacyclovir via the Human Intestinal Peptide Transporter (hPEPT1) in CHP cells," <i>Biopharm Drug Dispos.</i> , <b>21</b> (5):165-174 (2000), Abstract.	
	104.	KNUTTER, I, et al., "A Novel Inhibitor of the Mammalian Peptide Transporter PEPT1," <i>Biochemistry</i> , <b>40</b> (14):4454-4458 (2001), Abstract.	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Please type a plus sign (+) inside this box



PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/727,565
		Filing Date	December 5, 2003
		First Named Inventor	Thomas PICCARIELLO et al.
		Group Art Unit	Unassigned
		Examiner Name	Unassigned
Sheet 7 of 7	Attorney Docket Number	54719.000099	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	105.	SHEN, H., et al., "Developmental Expression of PEPT1 and PEPT2 in Rat Small Intestine, Colon, and Kidney," <i>Pediatr Res</i> , 49(6):789-795 (2001), Abstract	
	106.	FRIEDRICHSEN, G.M., et al., "Model Prodrugs Designed for the Intestinal Peptide Transporter. A Synthetic Approach for Coupling of Hydroxy-Containing Compounds to Dipeptides," <i>Eur J Pharm Sci</i> , 14(1):13-19 (2001), Abstract.	
	107.	HAN H., et al., "5'-Amino Acid Esters of Antiviral Nucleosides, Acyclovir, and AZT and Absorbed by the Intestinal PEPT1 Peptide Transporter," <i>Pharm Res</i> , 15(8):1154-1159 (1998), Abstract.	
	108.	BLIMANE, P.V., et al., "Direct Evidence for Peptide Transporter (PepT1)-Mediated Uptake of a Nonpeptide Prodrug, Valacyclovir," <i>Biochem Biophys Res Commun</i> , 250(2):246-251 (1998), Abstract.	
	109.	HAN, H.K., et al., "Cellular Uptake Mechanism of Amino Acid Ester prodrugs in Caco-2hPEPT1 Cells Overexpressing a Human Peptide Transporter," <i>Pharm Res</i> , 15(9):1382-1386 (1998), Abstract.	
	110.	SHIRAGA, T., et al., "Cellular and Molecular Mechanisms of Dietary Regulation on Rat Intestinal H+/Peptide Transporter PepT1," <i>Gastroenterology</i> , 116(2):354-362 (1999), Abstract.	
	111.	GUO, A., et al., "Interactions of a Nonpeptidic Drug, Valacyclovir, with the Human Intestinal Peptide Transporter (hPEPT1) Expressed in a Mammalian Cell Line," <i>Pharmacol Exp Ther</i> , 289(1):448-454 (1999), Abstract.	
	112.	AMIDON, G.L., et al., "5'-Amino Acid Esters of Antiviral Nucleosides, Acyclovir, and AZT are Absorbed by the Intestinal PEPT1 Peptide Transporter," <i>Pharm Res</i> , 16(2):175 (1999), Abstract.	
	113.	LEIBACH, F.H, et al., "Peptide Transporters in the Intestine and the Kidney," <i>Annu Rev Nutri</i> , 16:99-119 (1996), Abstract.	
	114.	HERRERA-RUIZ, D., et al., "Spatial Expression Patterns of Peptide Transporters in the Human and Rat Gastrointestinal Tracts, Caco-2 in vitro Cell Culture Model, and Multiple Human Tissues," <i>AAPS PharmSci</i> , 3(1):E9 (2001), Abstract.	
	115.	TOTH, Istvan, "A Novel Chemical Approach to Drug Delivery: Lipidic Amino Acid Conjugates," <i>Journal of Drug Targeting</i> , 2:217-239 (1994).	
	116.	NAOKI Negishi, et al., "Coupling of Naltrexone to Biodegradable Poly ( $\alpha$ -Amino Acids)," <i>Pharmaceutical Research</i> , 4(4):305-310 (1987).	

Examiner Signature	Date Considered
--------------------	-----------------

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.